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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,889	10/25/2000	Takahiro Ichikawa	450100-02795	3325

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EXAMINER	
ONUAKU, CHRISTOPHER O	
ART UNIT	**PAPER NUMBER**
2616	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/695,889	ICHIKAWA ET AL.	
	Examiner	Art Unit	
	Christopher O. Onuaku	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,5,6,8-11,15,17&18 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohtaka et al (US 5,392,129).

Regarding claim 1, Ohtaka et al disclose a signal processing apparatus for concealing uncorrectable errors during signal reproduction in a digital signal recording and reproducing apparatus for digitizing a video signal and recording and reproducing the digitized signal, comprising a reproducing means for reproducing a data (sync blocks) stored in a recording medium (see Fig.1, which shows the reproduction portion of a digital VCR; col.3, lines 43-46), a first information detection means (see memory 108) for detecting a first piece of data information proving the rightness or wrongness of reproducing the data as signal, using the address information (see Fig.5a) of the data reproduced by the reproduction means, a memory means (see substitution memory 114), an error correction means (see inner correction 104 and outer correction 106) for performing an error detection/error correction operation on each of the data proved for

the rightness of being reproduced as signal by the first piece of data information and storing the data back in the memory means after the error correction operation, a second data information detection means (see HRT flag detector 16) for detecting a second piece of data information indicating a data to be reproduced as signal among the data subjected to the error correcting operation of the error correction means, a decoding means (see bit error rate reduction decoder 128) and a control means (which is inherent in Ohtaka in order for Ohtaka to function efficiently) for controlling the data output from the memory means to the decoding means by referring to the first piece of data information detected by the first data information detecting means and the second piece of data information detected by the second data information detection means(see Fig.1; col.5, line 58 to col.8, line 51), here the examiner reads limitations of claim 1 on the Ohtaka system since the limitations of claim 1 are very broadly claimed.

Regarding claim 2, Ohtaka discloses wherein the memory means stores the first data information and the second data information on the basis of the unit of each sector of data to be decoded by the decoder along with the data (see memory 108 and the sync blocks (both the errorless sync blocks and sync blocks with errors in them) stored in parallel col. 6, lines 5-12).

Regarding claim 5, the claimed limitations of claim 5 are accommodated in the discussions of claim 1 above, including the parity data (see col.5, line 58 to col.6, line 4).

Regarding claim 6, Ohtaka discloses wherein the first data information detection means is adapted to detect the information indicating the data to be output as signal to be reproduced according to the sector address information added to each sector of the data reproduced by the reproduction means (see Fig.1&5, and claim 1 discussions), here the sync blocks can be processed and reproduced since sync blocks each includes identification data, a track number for correctly writing the reproduced sync block to memory, the sync block number (see col.1, lines 51-63).

Regarding claim 8, Ohtaka discloses wherein video signals are recorded on the recording medium (see Fig.2, VCR and the recording tape; col.3, lines 51-67).

Regarding claim 9, Ohtaka disclose wherein a data reproduction apparatus, where the apparatus comprises wherein the second data information detection means is adapted to generate the information to be reproduced by the reproduction means as second data information according to the added information identifying information for identifying the information added to data, the result-of-correction flag indicating the result of error correction of the error correction means and the data category information indicating the category of information, and the reproduction control means is adapted to control the reproduction means according to the second data information detected by the second data information detection means (see col.1, lines 50-63, and claim 1 discussions above).

Regarding claim 10, the claimed limitations of claim 10 are accommodated in the discussions of claim 1 above.

Regarding claim 11, Ohtaka discloses wherein the first data information (error free data) and the second data (data with some error) information are stored in the memory means (see Fig.1&6; memory 108; col.6, lines 5-12)., and data to be decoded are reproduced under control by referring to the first data information and the second data information stored in the memory means (see claim 1 discussions above).

Regarding claim 15, Ohtaka discloses wherein the information indicating the data to be output as signal to be reproduced is detected as first data information according to the sector address information added to each of the reproduced data (see sync block, and sync block identification data and the track number; col.1, lines 51-63), here the sync identification data and track number are detected during reproduction process to reproduce the sync block.

Regarding claim 17, the claimed limitations of claim 17 are accommodated in the discussions of claim 8 above.

Regarding claim 18, the claimed limitations of claim 18 are accommodated in the discussions of claim 9 above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3,4,7,12-14&16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtaka et al in view of Kawamura et al (US 6,308,004).

Regarding claim 3, Ohtaka et al fail to explicitly disclose wherein the memory means is a ring buffer adapted to store the data of at least a track reproduced from the recording medium by the reproduction means or the data of at least a track corrected for errors by the correction means. Kawamura et al teach a data reproduction apparatus and a data storage medium that can be preferably applied to, for example, those using a storage medium with digitized moving picture stored therein, comprising the ring buffer 4 which has a FIFO memory inside, and temporarily buffers multiplexed data, sector data, and an error flag from the error correction device 3 in the format of Fig.7A to transfer multiplexed data and the associated sector number and error flag in the format shown in Fig.7A in response to a read-out pointer indicated by the ring buffer control circuit (see Fig.1, ring buffer 4; col.9, lines 29-35). It would have been obvious to modify Ohtaka by adding a ring buffer to the Ohtaka system, as taught by Kawamura, in order to temporarily buffer multiplexed data, sector data, and an error flag from the error correction device.

Regarding claim 4, Ohtaka modified with Kawamura, it would have been obvious for the control means to control the data output pointer of the ring buffer according to the second data information detected by the second data information detection means in order for the Ohtaka system to function efficiently.

Regarding claim 7, Ohtaka fail to explicitly disclose wherein the recording medium is an optical disk adapted to reproduce data when irradiated with light and the reproduction means is an optical pickup. Kawamura further teaches the optical disk (DSM) 1 and a drive driving a pickup (the pickup may be a magnetic or an optoelectro head) comprising an optical head for reading reproduction signals from the DSM 1. disk drive 2 (see Fig.1; optical disk (DSM; col.8, lines 42-61).

Regarding claim 12, Kawamura further discloses wherein the reproduced data of at least a track or the data corrected for errors of at least a track are stored in a ring buffer (see col.9, lines 29-62).

Regarding claim 13, the claimed limitations of claim 13 are accommodated in the discussions of claim 4 above.

Regarding claim 14, Kawamura further teaches wherein the data reproduced from the recording medium and having a data structure of sequentially arranging

information data and parity data are rearranged and stored in the ring buffer (see col.8, line 51 to col.9, line 25).

Regarding claim 16, the claimed limitations of claim 16 are accommodated in the discussions of claim 7 above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yonemitsu et al (US RE37,327) teach a novel optical disk, including a method of recording and reading information on the disk and an apparatus for carrying out that method.

Fujinami (US 6,035,092) teaches a data reproducing device used to reproduce both video data and audio data recorded on an optical disc in a time division multiplexing (TDM) mode while separating and decoding these data.

Ota et al (US 5,920,529) teach a method and apparatus for reproducing data suitable for the reproduction of video data, audio data and the like recorded on an optical disc, magneto-optical disk.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher O. Onuaku whose telephone number is (703) 308-7555. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Acting supervisor, Thai Tran can be reached on 703-305-4725. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

eoo

8/21/04

THAI TRAN
PRIMARY EXAMINER